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1. Purpose The purpose of this supplement is to clarify procedures for requesting new hydrologic services or changes to existing hydrologic services at Weather Forecast Offices (WFOs) and River Forecast Centers (RFCs). Changes to existing hydrologic services include discontinuation of those services. This supplement also specifies an e-mail method of request and approval for timely implementation.

2. Background: The WFO Hydrologic Program Manager (HPM), in coordination with the RFC and partners such as Emergency Managers and other officials, determines the need for new or changed hydrologic services in his or her Hydrologic Service Area. Where RFCs determine a need for a forecast service change involving numerous WFOs, the Hydrologist in Charge (HIC) may designate one of his or her staff to coordinate the change. Requests for new hydrologic services and changes to existing hydrologic services are approved by Central Region Headquarters (CRH) Services Division (SD). Approval is not necessary for changes to river gauge locations which do not require computational changes to the hydrologic model, significant changes to WHFS applications, changes to service backup, or significant changes to internet services. Further information on U.S. Geological Survey (USGS) gauge closures, flood stage changes and gauge zero changes can be found in NWSI 10-940. This supplement does not pertain to new or significantly altered internet products and services.

3. Definitions: The following definitions apply to this supplement.

Forecast Point (FP): A FP has an established flood stage, an E-19, E-19a and a river gauge (preferably telemetered) for which the RFC provides a forecast. It is strongly recommended that it also have a rating table.

Local Forecast Point (LFP): A LFP is a point for which either the RFC provides headwater guidance instead of a regularly modeled forecast, or the WFO has a local procedure or model to provide forecasts for that point. A LFP should have a river gauge

(preferably telemetered), an established flood stage and an E-19a. It is strongly recommended that it also have a rating table.

Although requesting forecast services at un-gauged locations is discouraged, exceptions may be allowed. Such requests will be reviewed on a case-by-case basis.

Hydrologic Services:

New hydrologic services include establishment of a FP or LFP for which operational information will be provided (e.g., stage, flow, volume, probability of exceedance, probability of non-exceedance). For development of a new or experimental hydrologic product, refer to NWSI 10-102.

Changed hydrologic services include relocation or closure of a FP or LFP for which operational products or other form of information have been provided, changes in flood stage, and expansion of current services (e.g., flood only to daily forecasts, 5-day forecasts to 7-day forecasts).

4. Procedure: The following procedure will be followed for request and approval of new hydrologic services or changes to existing hydrologic services.

4.1 Requests: Upon approval of the Meteorologist or Hydrologist in Charge, the HPM or RFC designee requests a change for new or existing NWS hydrologic services by submitting the request via e-mail to the [CRH Water Services Program Manager](#). The submitter should expect a response within five working days. To expedite the process, the HPM or RFC designee should coordinate the proposed change with the servicing RFC or affected WFOs, respectively, and other impacted agencies prior to sending the e-mail. Requests should contain information specific to the change, including but not limited to, the following:

- FP/LFP affected: river or stream and gauge location name
- Current services: type and frequency of delivery
- Proposed change (e.g., new, expanded, reduced, discontinued; datum, flood stage)
- Reason for change
- Parties affected and coordination completed
- Affected products
- Proposed effective date

4.1.1 Requests involving Flood Warning Systems: Requests involving the establishment or expansion of flood warning systems which involve a cooperative effort between the community and the NWS, require a signed Agreement (Memorandum of Understanding) between the cooperator and the NWS. The MOU process will follow the guidelines specified by the NWS Chief Financial Officer at <http://www.weather.gov/cfo/comptroller/agreover.htm>.

4.2 Review: SD will designate a point of contact (POC) to coordinate an evaluation of the request with the offices involved (WFO, RFC, CRH Hydrologic Science Division, national headquarters, other regional headquarters, etc.) and process the request. If needed, the RFC will

provide a technical evaluation of the validity of the request and the resources and time needed to implement it (e.g., new calibration, rating table availability).

4.3 Authorization: Upon approval, the POC will notify the requesting HPM or RFC of the approved services (those requested or alternative services based on available data and forecast procedures).

4.4 Implementation: The HPM or RFC will coordinate the new service or change in service with affected hydrologic partners and customers (e.g., emergency managers, other hydrologic agencies, media), and issue new or updated forms E-19 and E-19a as required in NWSI 10-924 (within 60 days for a new FP/LFP and within 30 days for other significant changes such as discontinuance of a FP/LFP). The WFO should keep a file of request, contact, and process information. Appendix A of this supplement, "Hydrologic Service Change Request Implementation Check List" is provided as a change management tool.

4.5 Public Notification. The public will be notified of the new service or change in service in a Public Information Statement (PNS) following guidelines in NWSI 10-1805, Section 2.1 and Table 1 in Section 5. If the type of service change is not specified in Table 1 of NWSI 10-1805, field offices should consult with a broad cross section of appropriate partner and customer groups to determine the impacts of the change and set an advance lead time which accommodates those impacts. Field offices will post the PNS to their homepage according to the appropriate national/regional procedures, and may also wish to issue a news release or send letters as appropriate.

Appendix A - Hydrologic Service Change Checklist

COORDINATION	CONTACT NAME	CONTACT DATE	COMMENTS
RFC			
CRH			
Partners (list)			
Primary Backup			
Secondary Backup			
Customers (PNS)	n/a		
Internet Notice (PNS)	n/a		
Other			

SOFTWARE CHANGES	LOCATION	DATE	COMMENTS
WHFS			
AHPS PAGE			
OTHER (LIST)			

DOCUMENTATION	DATE ISSUED	COMMENTS
E-19		
E-19a		
Primary Backup Information		
Secondary Backup Information		

Appendix B – E-19 Change Checklist

Station Location/ID: _____ Date: _____

The following changes were made to the attached E-19

- New Forecast Point
- Discontinued Forecast Point
- Change in Datum
- Change in Flood Stage
- Change in Action Stage
- Change in Bankfull
- Change in Flood Category
- Change in Lat/Long
- Change in Phone Number
 - Observer
 - Gage
 - Contact
- Change in Area Code
- Change in Equipment
- Change in Observer
- Change in Observation Type
- Updated Point of Contacts
- Change in Station Name
- Changed Station ID/SHEF ID
- Updated Map
- Changed Telemetry

- Change in Benchmarks
- Change in Conditions affecting flow
- Updated USGS Station Description attached
- New Flood of Record Stage and/or Date
- Updated Crest Stages
- Updated Impact Statements
- Change in Forecast Issuance Stage
- Change in Forecast Service
- Other

Appendix C - Example Public Information Statements (PNS)

Example Public Information Statements (PNS)

1. Example National PNS for change in forecast

NOUS41 KWBC
PNSWSH

SERVICE CHANGE NOTICE 04-##
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
xxxx PM EDT THU JUNE 10 2004

TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS...NOAA WEATHER WIRE
SERVICE /NWS/ SUBSCRIBERS...EMERGENCY MANAGERS WEATHER
INFORMATION NETWORK /EMWIN/ SUBSCRIBERS...NOAAPORT
SUBSCRIBERS...OTHER NATIONAL WEATHER SERVICE /NWS/
CUSTOMERS AND PARTNERS...NWS EMPLOYEES

FROM: THOMAS GRAZIANO
CHIEF...SERVICES BRANCH
HYDROLOGIC SERVICES DIVISION

SUBJECT: ENHANCEMENT TO HYDROLOGIC PRODUCTS ISSUED BY NWS OFFICES
IN ITS CENTRAL REGION...EFFECTIVE AUGUST 24 2004

ON AUGUST 24 AT 1200 COORDINATED UNIVERSAL TIME /UTC/...CERTAIN
NATIONAL WEATHER SERVICE FORECAST OFFICES IN CENTRAL REGION WILL
ISSUE HYDROLOGIC PRODUCTS THAT MAY INCLUDE SPECIFIC RIVER
FORECASTS THROUGH SEVEN DAYS. THE HYDROLOGIC PRODUCTS EXPANDING
THE FORECAST TIME FRAME ARE LISTED IN THE FOLLOWING TABLE.

PRODUCT TYPE	PRODUCT CATEGORY
HYDROLOGIC OUTLOOK	ESF
FLOOD WATCH	FFA
FLOOD WARNING	FLW
FLOOD STATEMENT	FLS
HYDROLOGIC STATEMENT	RVS

AN EXPLICIT LIST OF AFFECTED PRODUCTS AND SAMPLE PRODUCTS ARE
POSTED AT /USE LOWER CASE LETTERS/:

WWW.CRH.NOAA.GOV/PUBLIC/PRODUCT_EXAMPLES/INDEX.PHP

THE NATIONAL WEATHER SERVICE WELCOMES PUBLIC FEEDBACK. IF YOU HAVE
ANY QUESTIONS OR COMMENTS ON THIS CHANGE...PLEASE CONTACT:

[NAME]
[TITLE]
[ADDRESS]

PHONE:

THIS NOTICE AND OTHER SERVICE CHANGE NOTICES ARE AVAILABLE ONLINE
AT /USE LOWER CASE LETTERS/:

HTTP://WWW.NWS.NOAA.GOV/OM/NOTIF.HTM

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2. Example local PNS for change in Flood Stage

NOUS43 KGRR 111519
PNSGRR

SERVICE CHANGE NOTICE
NATIONAL WEATHER SERVICE GRAND RAPIDS, MI
1119 AM EDT WED AUG 11 2004

TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS...
NOAA WEATHER WIRE SERVICE /NWS/SUBSCRIBERS...
EMERGENCY MANAGERS...WEATHER INFORMATION NETWORK
/EMWIN/SUBSCRIBERS...NOAAPORT SUBSCRIBERS...
OTHER NATIONAL WEATHER SERVICE/NWS/ CUSTOMERS
AND PARTNERS...AND NWS EMPLOYEES

FROM: MARK L. WALTON
SERVICE HYDROLOGIST

SUBJECT CHANGE IN FLOOD STAGE AT JACKSON ON THE GRAND RIVER...
EFFECTIVE SEPTEMBER 10 2004 AT 8 AM EDT

ON FRIDAY...SEPTEMBER 10 2004...AT 8 AM EDT/...THE NATIONAL WEATHER
SERVICE /NWS/ WEATHER FORECAST OFFICE /WFO/ IN GRAND RAPIDS MICHIGAN
WILL CHANGE THE FLOOD STAGE ON THE GRAND RIVER AT JACKSON FROM 13 TO
14 FEET. AT 14 FEET MINOR FLOODING OF LOW LYING AREAS OCCURS ALONG
THE GRAND RIVER NEAR THE CITY OF JACKSON.

THE UNCAPPING OF THE GRAND RIVER IN DOWNTOWN JACKSON IN 2001
RESULTED IN A CHANGE TO THE FLOOD IMPACTS ALONG THE GRAND RIVER IN
JACKSON. THE CAP REMOVAL AND BANK STABILIZATION OF THE GRAND RIVER
IN DOWNTOWN JACKSON HAS RESULTED IN A POSITIVE REDUCTION IN THE
FREQUENCY OF FLOODING...AND MORE WATER CAN NOW SAFELY PASS THROUGH
THE CITY OF JACKSON BEFORE CAUSING FLOOD PROBLEMS. AS A
RESULT...SIGNIFICANT FLOOD IMPACTS BEGIN TO OCCUR AT HIGHER STAGES
AND THE FLOOD STAGE IS BEING CHANGED FROM 13 TO 14 FEET TO REFLECT
THIS CHANGE. THE NWS DEFINES FLOOD STAGE AS THE RIVER LEVEL THAT
BEGINS TO IMPACT LIFE AND/OR PROPERTY...AND RIVER FLOOD WARNINGS ARE
ISSUED WHEN THE GRAND RIVER AT JACKSON IS FORECAST TO REACH FLOOD
STAGE.

THE GRAND RAPIDS OFFICE OF THE NATIONAL WEATHER SERVICE HAS

IMPLEMENTED ADVANCED HYDROLOGIC PREDICTION SERVICE (AHPS) FOR THE
GRAND RIVER AT JACKSON. AHPS ENABLES THE NATIONAL WEATHER
SERVICE TO PROVIDE FIVE DAY FORECASTS AND LONG-RANGE PROBABILISTIC
RIVER OUTLOOKS. ADDITIONAL SUPPORTIVE DATA AND EXPLANATION ARE
AVAILABLE ON THE INTERNET AT:WWW.CRH.NOAA.GOV/GRR/(INTERNET
ADDRESSES ARE ALL LOWER CASE).

THE NATIONAL WEATHER SERVICE WELCOMES PUBLIC FEEDBACK. IF YOU HAVE

ANY QUESTIONS OR COMMENTS ON THIS CHANGE...PLEASE CONTACT:

MARK WALTON

HYDROLOGIC PROGRAM MANAGER
NATIONAL WEATHER SERVICE FORECAST OFFICE
4899 SOUTH COMPLEX DRIVE, S.E.
GRAND RAPIDS, MI 49512

PHONE: (616) 949-0643 EXT. 493
EMAIL: MARK.WALTON@NOAA.GOV

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WALTON

3. Example local PNS for change in Gage Zero and Flood Stage

ABUS34 KWFO DDHHMM
PNSXXX
SERVICE CHANGE NOTICE
NATIONAL WEATHER SERVICE [WFO name]
xxxx PM EDT THU JUNE 10 2004

TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS...NOAA WEATHER WIRE
SERVICE /NWS/ SUBSCRIBERS...EMERGENCY MANAGERS WEATHER
INFORMATION NETWORK /EMWIN/ SUBSCRIBERS...NOAAPORT
SUBSCRIBERS...OTHER NATIONAL WEATHER SERVICE /NWS/
CUSTOMERS AND PARTNERS...NWS EMPLOYEES

FROM: [MIC name]
METEOROLOGIST IN CHARGE
WFO LOCATION, STATE

SUBJECT: CHANGE IN GAGE ZERO AND FLOOD STAGE AT [NAME] ON THE [NAME] RIVER

DUE TO RECENT FLOODING AT "ANYTOWN" ON THE X RIVER...THE U.S. GEOLOGICAL SURVEY HAS DETERMINED A NEW GAGE DATUM (ELEVATION ZERO) FOR THE X RIVER AT ANYTOWN. THIS CHANGE IN GAGE ZERO WILL RESULT IN A CHANGE IN FLOOD STAGE. ON month DD AT 1200 COORDINATED UNIVERSAL TIME /UTC/...THE NEW GAGE ZERO WILL BE SET AT 1002 FEET ABOVE MEAN SEA LEVEL (MSL). THE PREVIOUS GAGE ZERO WAS 1000 FEET MSL. THIS CHANGE REQUIRES A SIMILAR ADJUSTMENT TO FLOOD STAGE TO ENSURE NO CHANGE IN NWS FORECAST AND WARNING SERVICES FOR ANYTOWN. THE NEW FLOOD STAGE WILL BE 8 FEET ABOVE GAGE ZERO (1010 MSL). THE PREVIOUS FLOOD STAGE WAS 10 FEET (1010 MSL). OBSERVATIONS AND FORECASTS FOR THE X RIVER AT ANYTOWN CAN BE USED BY PERSONS BETWEEN TOWN A AND TOWN B.

THE NATIONAL WEATHER SERVICE WELCOMES PUBLIC FEEDBACK. IF YOU HAVE ANY QUESTIONS OR COMMENTS ON THIS CHANGE...PLEASE CONTACT:

[HPM NAME]
HYDROLOGIC PROGRAM MANAGER
NATIONAL WEATHER SERVICE FORECAST OFFICE
[ADDRESS]

PHONE:

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4. Example local PNS for change in gage location

ABUS34 KMLI 212100
PNSMLI

SERVICE CHANGE NOTICE
NATIONAL WEATHER SERVICE QUAD CITIES IA IL
400 PM CDT WED JUL 10 2004

...CHANGES TO RIVER FORECASTS IN THE ANAMOSA IOWA...AND MANCHESTER
IOWA AREAS...

TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS...NOAA WEATHER WIRE
SERVICE /NWWS/ SUBSCRIBERS...EMERGENCY MANAGERS WEATHER
INFORMATION NETWORK /EMWIN/ SUBSCRIBERS...NOAAPORT
SUBSCRIBERS...OTHER NATIONAL WEATHER SERVICE /NWS/
CUSTOMERS AND PARTNERS...NWS EMPLOYEES

FROM: JAMES BELLES
METEOROLOGIST IN CHARGE
WFO QUAD CITIES...DAVENPORT, IOWA

SUBJECT: CHANGE TO RIVER FORECAST SERVICE IN THE ANAMOSA IOWA...AND
MANCHESTER IOWA AREAS

...ANAMOSA IOWA AREA...

UPON COORDINATION WITH LOCAL...STATE...AND FEDERAL OFFICIALS IN THE
ANAMOSA AREA...THE NWS IN THE QUAD CITIES HAS CHANGED THE LOCATION
FOR RIVER FORECASTS AT ANAMOSA ON THE WAPSIPINICON RIVER. ON JULY
15...2004...AT 1800 COORDINATED UNIVERSAL TIME /UTC/...THE LOCATION
FOR RIVER FORECASTS IN ANAMOSA BECAME THE GAUGING STATION ON SHAW
ROAD ON THE SOUTHEAST SIDE OF TOWN...OR NEAR THE U.S. HIGHWAY 151
BRIDGE. THIS REPLACES THE OLD LOCATION WHICH WAS ON THE ELM STREET
BRIDGE ON THE SOUTHWEST SIDE OF TOWN. THE FLOOD STAGE FOR THIS NEW
LOCATION IS 14 FEET.

THE NWS WILL PROVIDE RIVER FORECASTS AND STATEMENTS...AND WARNINGS
AS NECESSARY...WHEN THE RIVER IS AT OR ABOVE...OR IS FORECAST TO BE
AT OR ABOVE...13 FEET.

AGAIN...RIVER FORECASTS...AS WELL AS FLOOD WARNINGS AND
STATEMENTS...FOR THE ANAMOSA AREA ARE NOW FOR THE SHAW ROAD GAUGE.

...MANCHESTER IOWA AREA...

UPON COORDINATION WITH LOCAL...STATE...AND FEDERAL OFFICIALS IN THE
MANCHESTER AREA...THE NWS IN THE QUAD CITIES HAS STARTED RIVER
FORECAST SERVICE AT MANCHESTER ON THE MAQUOKETA RIVER. ON JULY
15...2004...AT 1800 COORDINATED UNIVERSAL TIME /UTC/...THE RIVER
FORECAST SERVICE BEGAN. THE LOCATION FOR RIVER FORECASTS IN ANAMOSA
IS THE GAUGING STATION ON U.S. HIGHWAY 20. THE FLOOD STAGE FOR THIS
LOCATION IS 14 FEET.

THE NWS WILL PROVIDE RIVER FORECASTS AND STATEMENTS...AND WARNINGS
AS NECESSARY...WHEN THE RIVER IS AT OR ABOVE...OR IS FORECAST TO BE
AT OR ABOVE...12 FEET.

THE NATIONAL WEATHER SERVICE WELCOMES PUBLIC FEEDBACK. IF YOU HAVE
ANY QUESTIONS OR COMMENTS ON THIS CHANGE...PLEASE CONTACT:

JEFF ZOGG
HYDROLOGIC PROGRAM MANAGER
NATIONAL WEATHER SERVICE FORECAST OFFICE
9050 HARRISON STREET
DAVENPORT, IOWA 52806-7326

PHONE: (563) 391-7094 X493

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JAZ/JEB

NNNN